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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,825	03/08/2004	Morteza Cyrus Afghahi	13435US04	2778
23446 7590 06/22/2010 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER WELLS, KENNETH B	
			ART UNIT 2816	PAPER NUMBER
			MAIL DATE 06/22/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/795,825

**Applicant(s)**

AFGHAHI ET AL.

**Examiner**

Kenneth B. Wells

**Art Unit**

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2010.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9 and 10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 9 and 10 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/C)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendment filed on 4/28/10 has been received and entered in the case. The arguments accompanying the amendment are insufficient to overcome the previous rejection based on Kerth, which is maintained and repeated, as set forth below.

***Title 35, U.S. Code***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Specification***

3. The disclosure is objected to because of the following informalities: as noted in the previous office action mailed on 12/31/09, on page 34, line 3 of the specification, it appears that "1010, 1011" is incorrect because these two reference numerals refer to the same node in instant Fig. 10 and, moreover, such node does not represent the inputs of differential amplifier 1012. Also in the specification, on page 34, line 8, it appears that "1002" should be changed to --1021--

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kerth, U.S. Patent No. 5,477,481.

As to claim 9, note Fig. 4A of Kerth, where the step of "sampling a voltage present at an input node" reads on the operation when the voltage at the top input terminal (where VINP is received) is transferred to the left plate of the top capacitor C1, i.e., when the top switch phiA closes; the step of "holding the sampled voltage at a reference node" reads on the storage of charge on the top capacitor C1 in response to the top switch phiA and the other phiA switch connected to the right plate of C1 closing; the recited step of "measuring an input signal at the input node by sampling the input signal and comparing it to the reference voltage" reads on the operation when the phiA switches open and the phiB switches close (note that this operation occurs at a predetermined interval after the sampling and holding of the voltage by switches phiA, and note that the input signal VINP gets compared to the reference voltage via comparator 48).

As to claim 10, the recited step of "activating a sampling

circuit a predetermined interval before measurement of the input signal is initiated" reads on the closing of the phiA switches.

### ***Response to Arguments***

5. Applicant's arguments filed on 4/28/10 have been fully considered but they are not persuasive.

Applicant's first argument is that reference numbers 1010 and 1011 "are not actually referring to a node, per se. They are actually referring to two separate inputs. The fact that these two inputs are coupled to the same node does not preclude the use of two different reference numbers for the two different inputs." This argument is not persuasive because it makes no sense. As clearly shown in instant Fig. 10, reference numerals 1010 and 1011 respectively point to a node and a line directly coupled to the node. Therefore, to argue that they are not referring to a node is not understood. Nor is the assertion that they are "referring to two separate inputs". It is not clear to the examiner what is meant by this.

Applicant's second argument is that "[a]pplicant also disagrees that reference number 1002 on page 34, line 8, of the specification should be changed to 1021." This argument is not persuasive because no reason or explanation has been provided by

applicant in order to support this traversal.

Applicant's third argument is that "when the [phiA] switch opens, the terminal receiving VINP (which the Examiner deems to be the input node per claim 9) is cut off from the rest of the circuit. Therefore, the opening of the [phiA] switch cannot constitute measuring the input signal (VINP) at the input node by sampling the input signal and comparing it to the reference voltage, per claim 9. Also, closing the [phiB] switch admits the signal that existed at the right side of capacitor C1 to the + terminal of the differential chopped amplifier 48, but in no conceivable way does that result in a comparison of that signal to the VINP signal present at the input node. Even if the opening of the [phiA] switch did not cut off the input signal VINP from the rest of the circuit (it does), at best the result would be a serial provision of successive signals to the + terminal of the differential chopped amplifier 48, which obviously does not result in a comparison of such successive signals." This argument is not persuasive because it appears to be based on a misunderstanding of the examiner's grounds of rejection. As noted above, in Fig. 4A of Kerth the step of "sampling a voltage present at an input node" in claim 9 reads on the operation when the voltage at the top input terminal (where VINP is received) is transferred to the left plate of the

top capacitor C1, i.e., when the top switch phiA closes; the step of "holding the sampled voltage at a reference node" reads on the storage of charge on the top capacitor C1 in response to the top switch phiA and the other phiA switch connected to the right plate of C1 closing; the recited step of "measuring an input signal at the input node by sampling the input signal and comparing it to the reference voltage" reads on the operation when the phiA switches open and the phiB switches close (note that this operation occurs at a predetermined interval after the sampling and holding of the voltage by switches phiA, and note that the input signal VINP gets compared to the reference voltage via comparator 48). Also note that the recited step of "activating a sampling circuit a predetermined interval before measurement of the input signal is initiated" in claim 10 reads on the closing of the phiA switches.

***Action is Final***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS

of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B. Wells whose telephone number is (571)272-1757. The examiner can normally be reached on Monday through Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan, can be reached at (571)272-1988. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval



(PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kenneth B. Wells/  
Primary Examiner  
Art Unit 2816

June 18, 2010